SAFETY ALERT

Alert# 10-04

VEHICLE TIRE SAFETY

AFFECTED WINGS: ALL
AFFECTED DUTY POSITIONS: ALL
PUBLISHED: June 19, 2010
EFFECTIVE: Immediately
REFERENCES: CAPR 77-1

It is imperative that we increase awareness of vehicle maintenance items and general tire condition. With higher ambient temperatures, and with increased useage for summer activities, it is important that we keep our members safe with vehicles that are only in top performing condition.

It is mandatory that all vehicle tires be inspected prior to operation (CAPF 73) of any CAP vehicle to check for wear, condition, abnormailites, and pressure. Any condition found to be out of limits shall be corrected before operation of the vehicle.

Examples of tires that should be considered for replacement are: Uneven treadwear, cracking sidewalls (as pictured), damaged air valves, damaged or missing tread, and minimal tread (high mileage).

Tire replacements for CAP ground vehicles are coordinated and reimbursed by NHQ Logistics and can be reached at 1-877-227-9142, ext. 275. For after hours and on weekends refer to the following guidance in CAPR 77-1, paragraph 9. C 2).

(See page 2)

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CAPR 77-1, para 9. C 2). (Regulation Date: 1 SEP 2003)

2) Emergency repair procedures

a) Emergency is defined as a repair needed while away from home station.

b) Telephone emergency to NHQ CAP/LGT for approval. Include the following:

Vehicle ID number

Problem with vehicle

Repair estimate

Caller's name

Method to contact caller

c) Fax or mail the vehicle reimbursement request and estimate or invoice for repairs to NHQ CAP/LGT within 24 hours.

d) After emergency repair is completed, mail paid original invoice to NHQ CAP/LGT within 10-working days.

e) If an emergency occurs on a weekend or after normal working hours, call NHQ CAP/LGT and leave a message on the answering machine. When leaving a message, follow the procedures listed in paragraph 9.c.2)b). If the estimated repairs exceed $500, notify NHQ CAP/LGT the next working day for approval prior to repair. If the estimated repairs are less than $500, proceed with repairs and comply with paragraph 9.c.2)c).

CAPR 77-1 ATTACHMENT 5 1 SEPTEMBER 2003 **Attachment 5. Tire Safety-Everything Rides On It**

Edited from the U.S. Department of Transportation National Highway Traffic Safety Administration (NHTSA) DOT HS 809 361

TIRE SAFETY Everything Rides On It

Studies of tire safety show that maintaining proper tire pressure, observing tire and vehicle load limits (not carrying more weight in your vehicle than your tires or vehicle can safely handle), avoiding road hazards, and inspecting tires for cuts, slashes, and other irregularities are the most important things you can do to avoid tire failure, such as tread separation or blowout and flat tires. These actions, along with other care and maintenance activities, can also:

- Improve vehicle handling
- Help protect you and others from avoidable break-downs and accidents
- Improve fuel economy
- Increase the life of your tires.

TIRE PRESSURE

Tires should be inflated in accord with the vehicle manufacturer's recommendations. These can be found in the owner's manual or on a placard, which is often located in the glove compartment or on the driver's doorjamb. Motorists should not rely on visual tire inspections to determine whether a tire is properly inflated but should use a tire pressure gauge to do so.

Finding Your Vehicle's Recommended Tire Pressure and Load Limits

Tire information placards and vehicle certification labels contain information on tires and load limits. These labels indicate the vehicle manufacturer's information including:

Recommended tire size

Recommended tire inflation pressure

Vehicle capacity weight (VCW –the maximum occupant and cargo weight vehicle is designed to carry)

Front and rear gross axle weight ratings (GAWR – the maximum weight the axle systems are designed to carry).

Both placards and certification labels are permanently attached to the vehicle door edge, doorpost, glove-box door, or inside of the trunk lid. You can also find the recommended tire pressure and load limit for your vehicle in the vehicle owner's manual. Manufacturers of passenger vehicles and light trucks determine this number based on the vehicle's design load limit, that is, the greatest amount of weight a vehicle can safely carry and the vehicle's tire size. The proper tire pressure for your vehicle is referred to as the "recommended cold inflation pressure." (As you will read below, it is difficult to obtain the recommended tire pressure if your tires are not cold.)

Because tires are designed to be used on more than one type of vehicle, tire manufacturers list the “maximum permissible inflation pressure” on the tire sidewall. This number is the greatest amount of air pressure that should *ever be put in the tire under normal driving conditions.* Remember, however, that the vehicle manufacturer, not the tire manufacturer, determines the correct tire pressure for the tires on your vehicle. The recommended tire inflation pressure that vehicle manufacturers provide reflects the proper psi when a tire is cold. The term cold does not relate to the outside temperature. Rather, a cold tire is one that has not been driven on for at least three hours. When you drive, your tires get warmer, causing the air pressure within them to increase. Therefore, to get an accurate tire pressure reading, you must measure tire pressure when the tires are cold or compensate for the extra pressure in warm tires.

Steps for Maintaining Proper Tire Pressure

Step 1: Locate the recommended tire pressure on the vehicle’s tire information placard, certification label, or in the owner’s manual.

Step 2: Record the tire pressure of all tires.

Step 3: If the tire pressure is too high in any of the tires, slowly release air by gently pressing on the tire valve stem with the edge of your tire gauge until you get to the correct pressure.

Step 4: If the tire pressure is too low, note the difference between the measured tire pressure and the correct tire pressure. These “missing” pounds of pressure are what you will need to add.

Step 5: At a service station, add the missing pounds of air pressure to each tire that is underinflated.CAPR 77-1 **Step 6:**

Check all the tires to make sure they have the same air pressure (except in cases in which the front and rear tires are supposed to have different amounts of pressure).

If you have been driving your vehicle and think that a tire is underinflated, fill it to the recommended cold inflation pressure indicated on your vehicle’s tire information placard or certification label. While your tire may still be slightly underinflated due to the extra pounds of pressure in the warm tire, it is safer to drive with air pressure that is slightly lower than the vehicle manufacturer’s recommended cold inflation pressure than to drive with a significantly underinflated tire. Since this is a temporary fix, don't forget to recheck and adjust the tire’s pressure when you can obtain a cold reading.

Checking Tire Pressure

Only 49 percent of gas stations that are equipped with air pumps provide tire pressure gauges, which are critical to determining if the correct amount of air has been delivered to tires. However, for a nominal price, motorists can purchase a tire pressure gauge. Because tires may naturally lose air over time, it is important to check your tire pressure at least once a month. For convenience, purchase a tire pressure gauge to keep in your vehicle. Gauges can be purchased at tire dealerships, auto supply stores, and other retail outlets. Remember, the tire inflation number that vehicle manufacturers provide reflects the proper pounds per square inch (psi) when a tire is cold. To get an accurate tire pressure reading, measure tire pressure when the car has been unused for at least three hours. A radial tire can lose much of its air pressure and still appear to be fully inflated. Operating a vehicle with substantially under-inflated tires can result in a tire failure, such as instances of tire separation and blowouts, with the potential for a loss of control of the vehicle. Under-inflated tires also shorten tire life and increase fuel consumption.

Maximum Permissible Inflation Pressure

This number is the greatest amount of air pressure that should ever be put in the tire under normal driving conditions.

Tire Size

To maintain tire safety, purchase new tires that are the same size as the vehicle’s original tires or another size recommended by the manufacturer.

Look at the tire information placard, the owner’s manual, or the sidewall of the tire you are replacing to find this information. If you have any doubt about the correct size to choose, consult with the tire dealer.

Maximum Load Rating

This number indicates the maximum load in kilograms and pounds that can be carried by the tire.

Tire Tread

"It is vitally important that motorists monitor tread depth to guard against tire failure and replace unsafe tires. Checking tires is a crucial element in regular vehicle maintenance," said Dr. Jeffrey W. Runge, NHTSA's Administrator.

Like tires that are under-inflated, bald tires also pose risks to motorists. A tire with insufficient tread can cause a driver to lose traction, especially under wet conditions. In addition, bald tires are more prone to damage caused by road debris. The tire tread provides the gripping action and traction that prevent your vehicle from slipping or sliding, especially when the road is wet or icy. In general, tires are not safe and should be replaced when the tread is worn down to 1/16 of an inch. Tires have built-in treadwear indicators that let you know when it is time to replace your tires. These indicators are raised sections spaced intermittently in the bottom of the tread grooves. When they appear “even” with the outside of the tread, it is time to replace your tires. Another method for checking tread depth is to place a penny in the tread with Lincoln’s head upside down and facing you. If you can see the top of Lincoln’s head, you are ready for new tires.

Tire Balance and Wheel Alignment

To avoid vibration or shaking of the vehicle when a tire rotates, the tire must be properly balanced. This balance is achieved by positioning weights on the wheel to counterbalance heavy spots on the wheel-and-tire assembly. A wheel alignment adjusts the angles of the wheels so that they are positioned correctly relative to the vehicle’s frame. This adjustment maximizes the life of your tires and prevents your car from veering to the right or left when driving on a straight, level road. These adjustments require special equipment and should be performed by a qualified technician.

Tire Safety Checklist.

Check tire pressure regularly (at least once a month), including the spare.

Inspect tires for uneven wear patterns on the tread, cracks, foreign objects, or other signs of wear or trauma.

Remove bits of glass and other foreign objects wedged in the tread.

Make sure your tire valves have valve caps.

Check tire pressure before going on a long trip.

Do not overload your vehicle. Check the tire information placard or owner's manual for the maximum recommended load for the vehicle.

If you are towing a trailer, remember that some of the weight of the loaded trailer is transferred to the towing vehicle.

Protection against avoidable breakdowns and crashes.

Improved vehicle handling. Better fuel economy. Increased tire life. Just a few of the reasons to take five minutes every month to check your tires. Simply use the handy checklist below, and see the reverse side for more information on tire safety. Safety Checklist Check tire pressure regularly (at least once a month), including the spare. Inspect tires for uneven wear patterns on the tread, cracks, foreign objects, or other signs of wear or trauma. Remove bits of glass and other foreign objects wedged in the tread. Make sure your tire valves have valve caps. Check tire pressure before going on a long trip. Do not overload your vehicle. Check the tire information placard or owner's manual for the maximum recommended load for the vehicle. If you are towing a trailer, remember that some of the weight of the loaded trailer is transferred to the towing vehicle.

Safety Tips

Slow down if you have to go over a pothole or other object in the road. Do not run over curbs, and try not to strike the curb when parking. Remember to check your tires once a month! There's Safety In Numbers You can find the numbers for recommended tire pressure and vehicle load limit on the tire information placard and in the vehicle owner's manual. Tire placards are permanent labels attached to the vehicle door edge, doorpost, glove-box door, or inside of the trunk lid. Once you've located this information, use it to check your tire pressure and to make sure your vehicle is not overloaded.

Please advise the National Safety Team with any questions or concerns at safety@capnhq.gov. Report ALL Incidents using the online Mishap Notification (Form 78).